

## Features

- Two accuracy ranks,  $\pm 1.5\%$ FS and  $\pm 2.5\%$ FS available
- Volt level output
- On-chip amplification and temperature compensations
- Pre-calibration of offset voltage and span
- Non-corrosive liquid measurable (XFGMC only)

## Applications

- Industrial instrumentation
- Pressure switch, Pneumatic device
- Medical device

## Part number for ordering

**XFGM C - 3 025KP G S R H**

Model  
XFGM

Length of the pressure port  
3 : 3mm  
6 : 6mm


Available pressure media  
No mark : Non-corrosive gas only  
C : Non-corrosive gas and liquid  
(Contact us about availability)

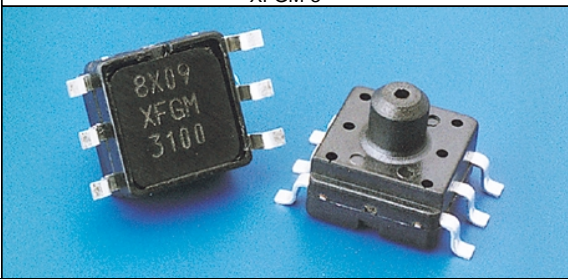
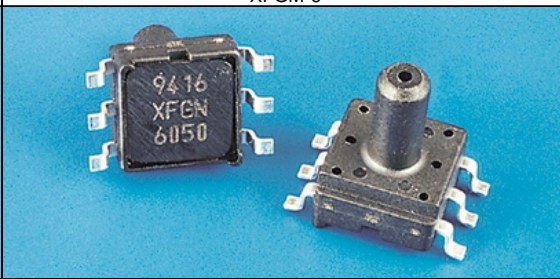
Rated pressure (Pa)

Pressure type  
G : Gauge (Positive pressure)  
GV : Gauge (Negative pressure)  
GW : Gauge (Bipolar pressure)

Terminal leads configuration  
S : Surface mount package

Accuracy No mark :  $\pm 2.5\%$ FS  
H :  $\pm 1.5\%$ FS  
(Contact us about availability)

Terminal leads direction(See Outline Diagram)  
R : 

Pressure type	Gauge pressure	
	XFGM-3	XFGM-6
Model		
Package configuration	Surface mount package, 3mm pressure port	Surface mount package, 6mm pressure port

Measurable pressure range (kPa)	Part number for ordering	
-100~100	XFGM-3100KPGWSR	XFGM-6100KPGWSR
0~-100	XFGM-3100KPGVSR	XFGM-6100KPGVSR
0~25	XFGM-3025KPGSR	XFGM-6025KPGSR
0~50	XFGM-3050KPGSR	XFGM-6050KPGSR
0~100	XFGM-3100KPGSR	XFGM-6100KPGSR
0~200	XFGM-3200KPGSR	XFGM-6200KPGSR
0~1000	XFGM-3001MPGSR	XFGM-6001MPGSR

## Specifications

Model/Rated pressure	100KPGW	100KPGV	025KPG	050KPG	100KPG	200KPG	001MPG	Unit
<b>Recommended operating conditions</b>								
Pressure type	Gauge pressure							—
Rated pressure	$\pm 100$	-100	25	50	100	200	1000	kPa
	$\pm 1.020$	-1.020	0.255	0.510	1.020	2.040	10.20	kg/cm <sup>2</sup>
Measurable pressure range	-100~100	0~-100	0~25	0~50	0~100	0~200	0~1000	kPa
Pressure media ※1	XFGM : Non-corrosive gas only, XFGMC : Non-corrosive gas and liquid							—
Excitation voltage	5.0 $\pm$ 0.25							VDC
<b>Absolute maximum rating</b>								
Maximum load pressure	Twice of rated pressure						1.5times of rated pressure	—
Maximum excitation voltage	8							VDC
Operating temperature	-40~125							°C
Storage temperature	-40~125							°C
Operating humidity	30~80(No dew condensation)							%RH
<b>Electric performances/characteristics (Excitation voltage Vcc=5.0V constant, Ambient temperature Ta=25 °C)</b>								
Current consumption	less than 10							mA
Output impedance	less than 10							$\Omega$
Source current	less than 0.2							mA
Sink current	less than 2							mA
Mechanical response time	2 (For the reference)							msec
Full scale span voltage	4.5							V
Offset voltage ※1.2	0.2 $\pm$ 0.1125, 0.2 $\pm$ 0.0675(H)							V
Full scale span voltage ※1.2	4.7 $\pm$ 0.1125, 4.7 $\pm$ 0.0675(H)							V
Accuracy ※1.2	$\pm 2.5, \pm 1.5$ (H)							%FS/0~85°C

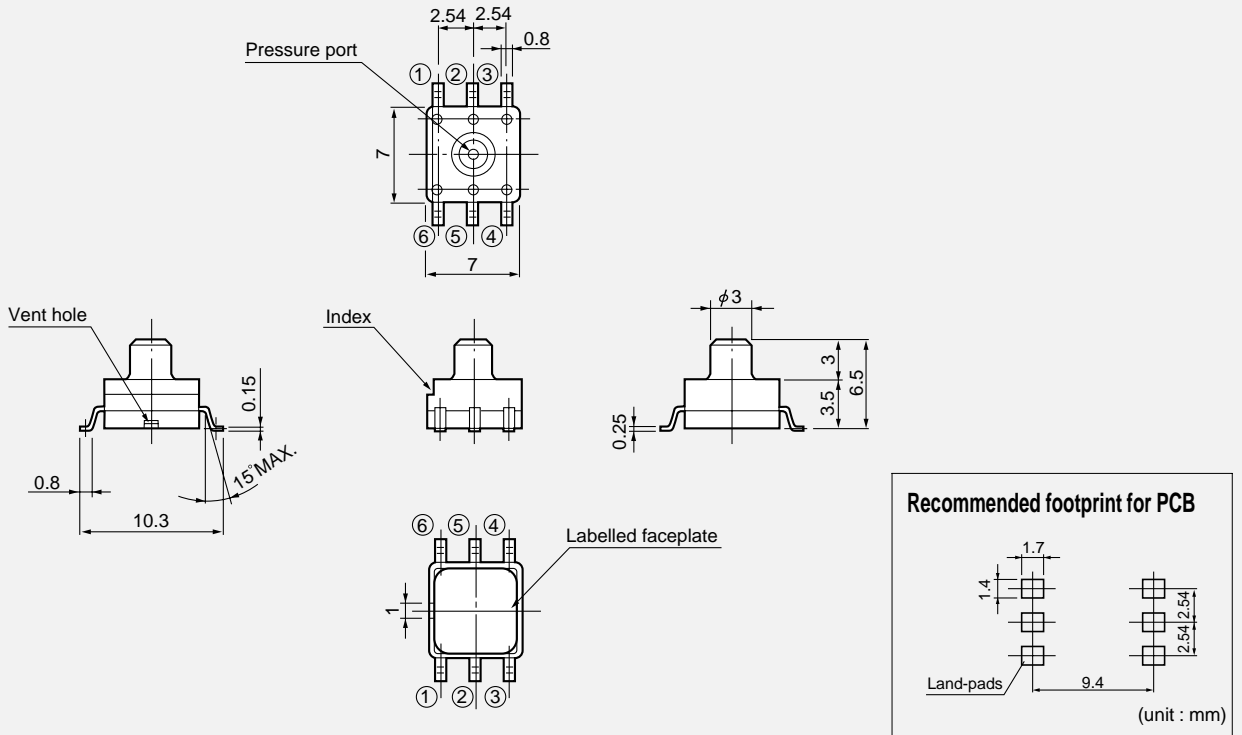
Note ; ※1) Please consult us available when you choose the C models and the H models.

※2) Excluding input voltage error.

■ Outline dimensions ■

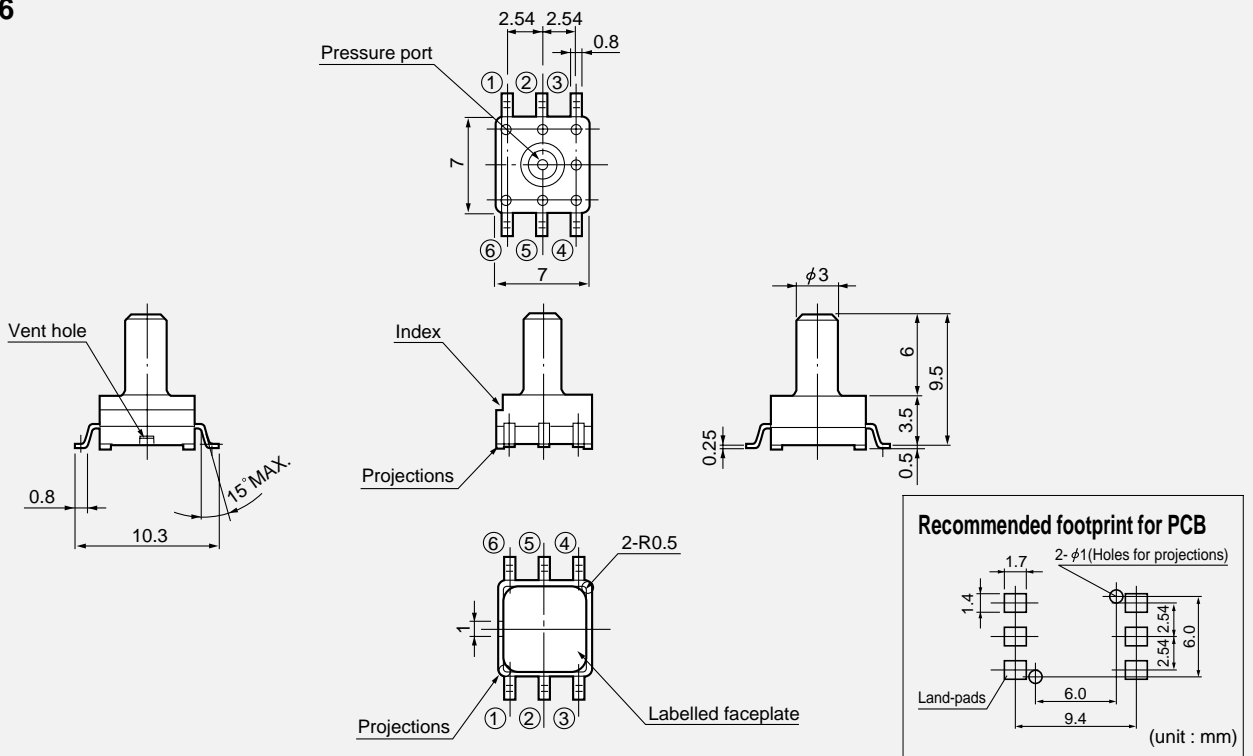
XFGM-3

unit : mm

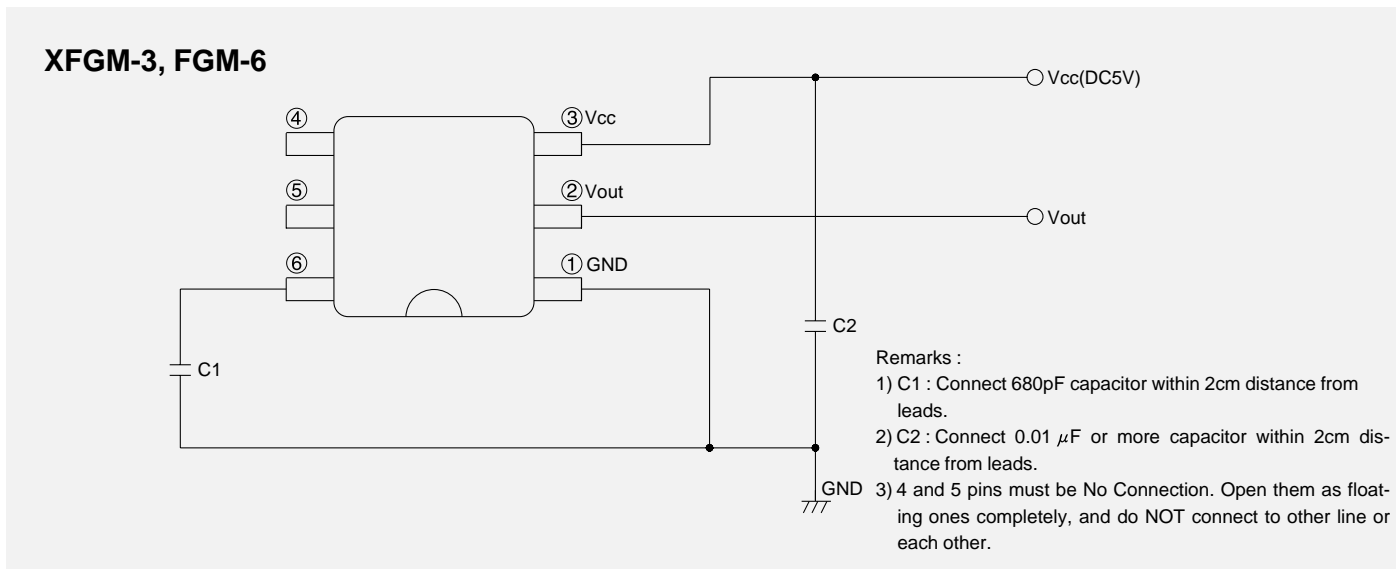


XFGM-6

unit : mm



■ Connection diagram ■



■ Transfer Function ■

$$V_{out} = V_s \times (P \times \alpha + \beta) \pm (\text{Pressure Error} \times \text{Temperature Error Multiplier} \times \alpha \times V_s)$$

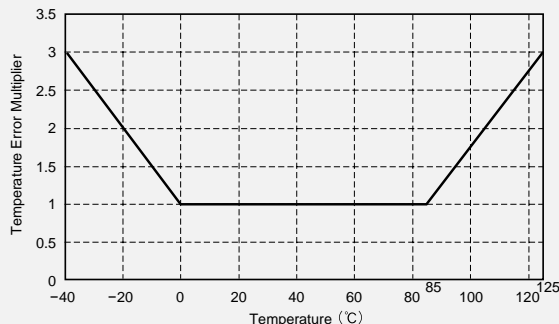
※ $V_s = 5.0$ volts

Notes ; The output voltage (Vout) is no perfect ratiometric with the power supply voltage.

※ $P = \text{Input Pressure (kPa)}$

Model	pressure range	$\alpha$	$\beta$	Pressure Error(kPa)
025KPG(D)	0~25kPa	0.036	0.04	0.625
050KPG(D)	0~50kPa	0.018	0.04	1.25
100KPG(D)	0~100kPa	0.009	0.04	2.5
100KPGV	0~-100kPa	-0.009	0.04	2.5
100KPGW(DW)	-100~+100kPa	0.0045	0.49	5.0
200KPG(D)	0~200kPa	0.0045	0.04	5.0
001MPG(D)	0~1MPa	0.0009	0.04	25
115KPA	15~115kPa.abs	0.009	-0.095	2.5

※Temperature Error Multiplier



Note ; Please read instruction "Notes" before using the sensor.  
Fujikura reserves the right to change specifications without notice.

**Fujikura Ltd.**

If you have any questions regarding technical issues or specifications, please contact us.  
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